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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,649	01/03/2006	George Barry Park	K0181.70019US00	2751
23628 7590 02/07/2008 WOLF GREENFIELD & SACKS, P.C. 600 ATLANTIC AVENUE BOSTON, MA 02210-2206			EXAMINER FISHER, ABIGAIL L	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/540,649	Applicant(s) PARK ET AL.	
	Examiner ABIGAIL FISHER	Art Unit 4173	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) 27-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/24/05 and 12/19/07</u> . | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

Claims 1-25 and 27-31 are pending.

#### ***Election/Restrictions***

Applicant's election of Group I in the reply filed on December 19 2007 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without** traverse (MPEP § 818.03(a)). Claims 1-25 and 27-31 are pending in the application. Claims 27-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 19 2007. Accordingly, claims 1-25 are being examined on the merits herein.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim as written is vague and indefinite. It is unclear what applicant means by a composition which comprises a water-dispersible and an oil-dispersible titanium dioxide and/or zinc oxide. There are two interpretations of this claim. The first interpretation is where both an inorganic and organic solvent are coating the same

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particle. If this interpretation is correct, then it is unclear how both types of coating are on one particle. The second interpretation is where one subset of the zinc oxide and/or titanium dioxide particles are coated with an organic solvent thereby making them oil dispersible, and a second subset of the zinc oxide and/or titanium dioxide particles are coated with an inorganic solvent thereby making them water dispersible.

The examiner will apply art according to the second interpretation.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-2, 11-14, 16-23 rejected under 35 U.S.C. 102(b) as being anticipated by Mitchnick et al. (US Patent No. 5441726, cited on PTO Form 1449).**

Mitchnick et al. discloses two ways of preparing zinc oxide particles. One way is through doped zinc oxide particles (figure 5 and column 9, lines 40-68). These particles are then exemplified as being utilized in sunscreen creams, emulsions (examples of column 12). The first example is an emulsion comprising the zinc oxide and octyl methoxycinnamate (an organic sunscreen). This emulsion comprises 5% of the doped zinc oxide and 7.5% octyl methoxycinnamate. The emulsion additionally comprises dimethicone (a silicone). It is disclosed that the rods having a length of less than 300 nm are optimal to confer transparency to the composition. An example of such a composition is a sunscreen, of which several formulations are provided (column 10-11, lines 65-68 and 1-3).

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With regard to the functional limitations in claim 1, claim 17, claim 18, and claim 19, Mitchnick et al. discloses the same claimed composition comprising organic components and doped zinc oxide. Note MPEP 2112.02 (1I): "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705,709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

#### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims
2. Determining the scope and contents of the prior art.
3. Ascertaining the differences between the prior art and the claims at issue, and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 3 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchnick et al.**

***Applicant Claims***

Applicant claims a UV sunscreensing composition comprising one or more organic components and an amount of titanium dioxide and/or zinc oxide which is doped with one or more elements and/or reduced zinc oxide. This composition has a rate of loss of UV absorption at least 5% less than that of a composition having the same formulation Except that it does not contain the said titanium dioxide and/or zinc oxide which has been doped with another element or the said reduced zinc oxide.

The composition further comprises titanium dioxide and/or zinc oxide which has not been doped or reduced.

A dependent claim indicates that the titanium dioxide and/or zinc oxide is coated with an inorganic or organic solvent.

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

The teachings of Mitchnick et al. are set forth above. The dopants include Bi and aluminum (column 10). Mitchnick et al. discloses that the zinc oxide may be combined with other metal oxides such as titanium oxides (column 11, lines 6-9). The second

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sunscreen formulation exemplifies using microfine titanium dioxide in combination of zinc oxide. The zinc oxide may be surface modified in order to make them more compatible in a given formulation. One example of a surface modification is a silicone-like compound in order to increase the zinc oxides compatibility with oil-based formulations (column 11, lines 17-21).

***Ascertainment of the Difference Between Scope the Prior Art and the Claims***  
***(MPEP §2141.012)***

Mitchnick et al. does not exemplify utilizing non-doped titanium dioxide and/or zinc oxide respectively in a composition comprising the UV absorber.

Mitchnick et al. does not exemplify utilizing titanium dioxide and/or zinc oxide that are coated with an organic solvent.

***Finding of Prima Facie Obviousness Rational and Motivation***  
***(MPEP §2142-2143)***

It would have been obvious to one of ordinary skill in the art to utilize non doped or reduced titanium oxide and/or zinc oxide. One of ordinary skill in the art would have been motivated to utilize these particles because Mitchnick et al. discloses that is acceptable to use these types of particles in sunscreen compositions. One of ordinary skill in the art would have a reasonable expectation that these particles would have at least an additive effect in sunscreen compositions thereby resulting in the practice of the instant application.

As a general principle it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a

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third composition to be used for the very same purpose, the idea of combining them flows logically from their having been individually taught in the prior art. See *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) **MPEP 2144.06**.

It would have been obvious to one of ordinary skill in the art to utilize particles that had been coated with an organic solvent. One of ordinary skill in the art would have been motivated to coat the particles because Mitchnick et al. discloses that surface modification makes them more compatible in a given formulations. Therefore depending on the desired formulation of the particles to be used, making the particles coated makes them more compatible with the formulations.

**Claims 4-10, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchnick et al. in view of Knowland et al. (WO 99/60994, cited on PTO Form 1449).**

### ***Applicant Claims***

Applicant claims a UV sunscreensing composition comprising one or more organic components and an amount of titanium dioxide and/or zinc oxide which is doped with one or more elements and/or reduced zinc oxide. This composition has a rate of loss of UV absorption at least 5% less than that of a composition having the same formulation Except that it does not contain the said titanium dioxide and/or zinc oxide which ahs been doped with another element or the said reduced zinc oxide.



A specific species claimed for the dopant is manganese. The dopant is present in an amount from 0.05 to 10 mole% (or 0.5 to 2 mole %). When the composition comprises titanium dioxide, the titanium dioxide is in rutile form. A dependent claim indicates that the titanium dioxide and/or zinc oxide is coated with an inorganic or organic solvent.

The organic component is a sunscreen agent that absorbs UV light in the UVA region.

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

The teachings of Mitchnick et al. are set forth above. The dopants include Bi and aluminum (column 10). The zinc oxide may be surface modified in order to make them more compatible in a given formulation. One example of a surface modification is a silicone-like compound in order to increase the zinc oxides compatibility with oil-based formulations (column 11, lines 17-21).

Knowland et al. teaches UV screening compositions comprising particles capable of absorbing UV light. The particles may be reduced zinc oxide particles (page 4, lines 6-8). The particles may also be titanium or zinc oxide that has been doped with nickel, iron, chromium, aluminum, manganese, among others (page 5, lines 1-7). It is disclosed that titanium dioxide can be rutile, anatase, or a combination thereof. The table on page 13 discloses the ability of the different forms in oxidative degradation of phenol. Knowland et al. teaches 0.5% manganese has shown to be effective, however as low as 0.05% or as high as 10% may also be used (page 5, lines 17-20). Knowland et al. teaches that the particles may have an inorganic or organic coating (page 6, lines

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25-26). Knowland et al. teaches the compositions comprising these particles may additionally contain silicones, other UVA, UVB, or broad-band sunscreen agents, colorants, metal oxide pigments, among others (page 7, lines 16-22).

***Ascertainment of the Difference Between Scope the Prior Art and the  
Claims  
(MPEP §2141.012)***

Mitchnick et al. does not disclose further utilizing doped titanium dioxide, titanium dioxide in rutile form, or reduced zinc oxide. For this reason Knowland et al. is relied upon.

Mitchnick et al. does not disclose that the dopant may be manganese and present in an amount from 0.05 to 10 mole% (or 0.5 to 2 mole %). For this reason Knowland et al. is relied upon.

Mitchnick et al. does not exemplify utilizing particles that are coated with an inorganic solvent or the inclusion of both water-dispersible and oil-dispersible particles. For this reason Knowland et al. is relied upon.

Mitchnick et al. does not disclose that sunscreen agents that absorb UV light in the UVA region are suitable. For this reason Knowland et al. is relied upon.

***Finding of Prima Facie Obviousness Rational and Motivation  
(MPEP §2142-2143)***

It would have been obvious to one of ordinary skill in the art to utilize doped titanium dioxide and/or reduced zinc oxide in the sunscreen formulations of Mitchnick et al. One of ordinary skill in the art would have been motivated to utilize these particles as

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they are disclosed in Knowland et al. as being other suitable doped particles for use in sunscreen compositions. Therefore one of ordinary skill in the art would have a reasonable expectation that these particles would function the same as the doped zinc oxide of Mitchnick et al.

It would have been obvious to one of ordinary skill in the art to utilize the rutile form of titanium dioxide. One of ordinary skill in the art would have been motivated to select this form as it is disclosed in Knowland et al. as being a suitable form of titanium dioxide to utilize in sunscreen formulations.

It would have been obvious to one of ordinary skill in the art to utilize manganese as the dopant. One of ordinary skill in the art would have been motivated to select manganese because Knowland et al. lists several different dopants that are suitable for use with either titanium dioxide or zinc oxide. It would have been obvious to one of ordinary skill in the art to pursue known options within his or her technical grasp, i.e. those listed in Knowland et al. as being suitable, resulting in the practice of the instant application with a reasonable expectation of success.

It would have been obvious to one of ordinary skill in the art utilize the dopant in an amount from 0.05 to 10 mole% (or 0.5 to 2 mole %). One of ordinary skill in the art would have been motivated to select that dopant in that amount because it is disclosed in Knowland et al. as being a suitable dopant. Additionally, Knowland et al. discloses that utilizing a dopant in this range is effective. Therefore one of ordinary skill in the art would have a reasonable expectation that these particles would function effectively with this particular amount of dopant.

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It would have been obvious to one of ordinary skill in the art to utilize particles coated with an inorganic solvent. One of ordinary skill in the art would have been motivated to coat the particles because Mitchnick et al. discloses that surface modified make them more compatible in a given formulations and Knowland et al. indicates that they can have an inorganic or organic coating. Therefore depending on the desired formulation of the particles to be used, it would have been obvious to one of ordinary skill in the art to coat the particles. These types of coatings would allow for a subset of the particles to oil-soluble, as Mitchnick et al. indicates, and another subset of the particles to be water-soluble, as Knowland et al. indicates. This would allow for the particles to be present in both phases of the composition and subsequently better coverage.

It would have been obvious to one of ordinary skill in the art to utilize sunscreen agents that absorb UV in the UVA region. One of ordinary skill in the art would have been motivated to choose these types of sunscreen agents because Knowland et al. discloses that they are suitable in these types of compositions. Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success in practicing the instantly claimed invention.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims

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are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/563062. Although the conflicting claims are not identical, they are not patentably distinct from each other because they overlap in scope. Both applications are directed to composition which comprise doped titanium dioxide and/or zinc oxide and/or reduced zinc oxide. The instant application claims an organic component while copending '062 claims an ingredient which is adversely affected by UV light in the presence of titanium dioxide and/or zinc oxide. A particular species of organic component as well as ingredient which is adversely affected is a UV sunscreen agent. Copending '062 claims all the instant limitations in the dependent claims. Therefore, both the instant application and '062 are directed to similar subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-25 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8, 10-12, 16-20, 24-29, 50-52, and 54-55 of copending Application No. 10/588071. Although the conflicting claims are not identical, they are not patentably distinct from each other because they overlap in scope. Both applications are directed to compositions which comprise doped titanium dioxide and/or zinc oxide. The instant application claims an organic component while copending '071 claims an ingredient which is adversely affected by UV light in the presence of titanium dioxide and/or zinc oxide. A particular species of organic component as well as ingredient which is adversely affected is a UV sunscreen agent. Copending '071 claims all the instant limitations in the dependent claims. Therefore, both the instant application and '071 are directed to similar subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-25 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11, and 14, of copending Application No. 10/555570. Although the conflicting claims are not identical, they are not patentably distinct from each other because they overlap in scope. Both applications are directed to compositions which comprise doped titanium dioxide and/or zinc oxide, and/or reduced zinc and organic components. Copending '570 claims that the product has a physical factor at least 5% less than that of a composition having the

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same formulation except that it does not contain doped titanium dioxide and/or zinc oxide. The instant application claims a specific physical factor (rate of loss of UV absorption). Copending '570 claims all the instant limitations in the dependent claims. Therefore, both the instant application and '071 are directed to similar subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14, 16-17, and 20-21 of copending Application No. 11/054188 and 11/207408 in view of Mitchnick et al. The instant application is directed to UV screening composition comprising organic components and doped titanium dioxide and/or zinc oxide and/or reduced zinc. Copending '188 and '408 claims a UV screening composition comprising particles. The particles as claimed include reduced zinc oxide, or zinc oxide and titanium dioxide with a second component. The second components overlap with the dopants of the instant application as well as the percentages claimed.

Copending '188 and '408 do not claim that sunscreen agent can be added. Copending '188 and '408 does not claim the composition is in the form of a lotion, gel, etc. or that the particles can be coated. However, Mitchnick et al. indicates that when formulating these particles into a sunscreen composition that other sunscreen components can be added (column 11, lines 54-56). Mitchnick et al. indicates that the preparation of sunscreens in the form of creams and lotions is well known in the art

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(column 11, lines 49-50). The zinc oxide may be surface modified in order to make them more compatible in a given formulation. One example is silicone-like compound in order to increase the zinc oxides compatibility with oil-based formulations (column 11, lines 17-21).

Therefore, it would have been obvious to one of ordinary skill in the art to formulate the UV screening composition of '188 and '408 in to a cream or lotion as it was known that these are well known forms of sunscreens. It would have been obvious to one of ordinary skill in the art to utilize coated particles. One of ordinary skill in the art would have been motivated to coat the particles because Mitchnick et al. discloses that surface modified make them more compatible in a given formulations. Therefore depending on the desired formulation of the particles will be used, making the particles coated makes them more compatible with the formulations.

This is a provisional obviousness-type double patenting rejection.

Claims 1-7, 11-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 7-8, and 10 of U.S. Patent No. 6869569 in view of Mitchnick et al. The instant application is directed to UV screening composition comprising organic components and doped titanium dioxide and/or zinc oxide and/or reduced zinc. Patent '569 claims a UV screening composition comprising zinc oxide particles incorporating manganese or chromium. The and/or language of the instant application indicates that the only particles present may be doped zinc oxide. Therefore the particles are the same between the two. Patent '569 does claim that



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sunscreen agent can be added therefore it would have been obvious to one of ordinary skill in the art to include them in the UV screening compositions.

Patent '569 does not claim the composition is in the form of a lotion, gel, etc. or that the particles can be coated. However Mitchnick et al. indicates that the preparation of sunscreens in the form of creams and lotions is well known in the art (column 11, lines 49-50). The zinc oxide may be surface modified in order to make them more compatible in a given formulation. One example is silicone-like compound in order to increase the zinc oxides compatibility with oil-based formulations (column 11, lines 17-21).

Therefore, it would have been obvious to one of ordinary skill in the art to formulate the UV screening composition of '569 in to a cream or lotion as it was known that these are well known forms of sunscreens. It would have been obvious to one of ordinary skill in the art to utilize coated particles. One of ordinary skill in the art would have been motivated to coat the particles because Mitchnick et al. discloses that surface modified make them more compatible in a given formulations. Therefore depending on the desired formulation of the particles will be used, making the particles coated makes them more compatible with the formulations.

### ***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABIGAIL FISHER whose telephone number is (571)270-3502. The examiner can normally be reached on M-Th 9am-6pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Abigail Fisher  
Examiner  
Art Unit 1616

AF



SHARMILA GOLLAMUDI LANDAU  
PRIMARY EXAMINER